This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1-11 (*Cancelled*)

12. (*Currently Amended*) A method for controlling sending cells from a first device having at least one communications link with a second device, the second device being capable of maintaining, for each of the at least one communications links, a queue for each of a plurality of X destinations, the method comprising:

[[a)]] maintaining a cell count associated with each of the X destination queues of the second device;

wherein the act of maintaining a cell count associated with each of the X destination queues of the second device comprises, for each of the at least one communications links,

[[i)]] accepting credit update information originating from the second device;

[[ii)]] accepting cell-in-transit information concerning a number of cells in transit from the first device to the second device; and

[[iii)]] updating the cell count using the ~~accepting~~ accepted credit update information and the accepted cell-in-transit information[[.]];

[[b)]] accepting a cell at the first device;

[[c)]] determining a destination of the cell; and

[[d)]] determining whether or not to forward the cell from the first device to the second device using the cell count associated with the one of the X destination queues of the second device corresponding to the determined destination of the cell.

13. *(Currently amended)* The method of claim 12 wherein determining whether or not to forward the cell from the first device to the second device using the cell count associated with one of the X destination queues is performed ~~acts (a) (d) are performed~~ for each of the at least one communications links independently.

14. *(Canceled)*

15. (*Currently amended*) The method of claim 12 wherein the credit update information includes information about a number of cells in each of the X destination queues of the second device associated with the at least one communications link.

16. (*Currently amended*) The method of claim 12 wherein the credit update information includes a count of cells in each of the X destination queues of the second device associated with the at least one communications link.

17. (*Currently amended*) The method of claim 12 wherein the cell-in-~~transmit~~ transit information is based on a round trip time delay between the first device and the second device.

18. (*Currently amended*) The method of claim 12 wherein the act of maintaining a cell count associated with each of the X destination queues further comprises ~~further comprising~~:

[[iv)]] resetting cell-in-transit information concerning a number of cells in transit from the first device to the second device.

19. (*Original*) The method of claim 18 wherein the cell-in-transit information is reset after updating the cell count.

20. (*Previously Presented*) The method of claim 12 wherein the accepted credit update information originating from the second device is carried in a cell header.

21. (*Currently amended*) The method of claim 12 wherein the accepted credit update information for all of the X destination queues is separated into parts, and wherein each of the parts of the accepted credit update information is [[are]] carried in a cell header of each of a plurality of S cells.

22. (*Original*) The method of claim 12 wherein the queues for the plurality of X destinations share a common buffer memory.

23. (*Currently amended*) The method of claim 12 wherein the act of maintaining a cell count associated with each of the X destination queues of the second device includes, for each of the at least one communications links,

[[i)]] accepting per destination queue cell count information originating from the second device;

[[ii)]] accepting per destination queue cell-in-transit from the first device to the second device count; and

[[iii)]] updating a per destination queue cell count with a sum of (A) the per destination queue cell count and (B) the per destination queue cell-in-transit count.

24. (*Original*) The method of claim 23 wherein the credit update information includes information about a number of cells in each of the destination queues of the second device associated with the at least one communications link.

25. (*Original*) The method of claim 23 wherein the credit update information includes a count of cells in each of the destination queues of the second device associated with the at least one communications link.

26. (*Original*) The method of claim 23 wherein the cell-in-transmit information is based on a round trip time delay.

27. (*Currently amended*) The method of claim 23 further comprising:

[[iv)]] resetting cell-in-transit information concerning a number of cells in transit from the first device to the second device.

28. (*Original*) The method of claim 27 wherein the cell-in-transit information is reset after updating the cell.

29. (*Original*) The method of claim 23 wherein the accepted credit update information originating from the second device is carried in a cell header.

30. (*Original*) The method of claim 23 wherein the accepted credit update information for all of the destination queues is separated into parts, and wherein each of the parts of the accepted credit update information are carried in a cell header of each of a plurality of S cells.

31. (*Original*) The method of claim 12 wherein the first device is an upstream switch module and the second device is a downstream switch module.

32. (*Canceled*)

33. (*Original*) The method of claim 21, wherein each of the plurality of S cells carries about R-bits of credit update information, wherein the maximum cell count size of each of the destination queues can be expressed with Q-bits, and wherein $R \geq \frac{QX}{S}$.

34. (*Original*) The method of claim 21, wherein each of the plurality of S cells carries about R-bits of credit update information, wherein the maximum cell count size of each of the destination queues can be expressed with Q-bits, and wherein $R = \frac{QX}{S}$.

35. (*Currently amended*) The method of claim 30, wherein each of the plurality of S cells carries about R-bits of credit update information, wherein the maximum cell count size of each of the destination queues can be expressed with Q-bits, and wherein [[R > $\frac{QX}{S}$]]

$\underline{R \geq \frac{QX}{S}}$.

36. (*Original*) The method of claim 30, wherein each of the plurality of S cells carries about R-bits of credit update information, wherein the maximum cell count size of each of the destination queues can be expressed with Q-bits, and wherein $R = \frac{QX}{S}$.

37. (*Currently amended*) Apparatus for controlling sending cells from a first device having at least one communications link with a second device, the second device being capable of maintaining, for each of the at least one communications links, a queue for each of a plurality of X destinations, the apparatus comprising:

[[a)]] means for maintaining a cell count associated with each of the X destination queues of the second device;

wherein the means for maintaining a cell count associated with each of the X destination queues of the second device include, for each of the at least one communications link<u>s</u>,

[[i)]] means for accepting credit update information originating from the second device;

[[ii)]] means for accepting cell-in-transit information concerning a number of cells in transit from the first device to the second device; and

[[iii)]] means for updating the cell count using the ~~accepting~~ <u>accepted</u> credit update information and the accepted cell-in-transit information;

[[b)]] means for accepting a cell at the first device;

[[c)]] means for determining a destination of the cell; and

[[d)]] means for determining whether or not to forward the cell from the first device to the second device using the cell count associated with the one of the X destination queues of the second device corresponding to the determined destination of the cell.

38. (*Canceled)*

39. (*Currently amended*) The apparatus of claim 37 wherein the credit update information includes information about a number of cells in each of the X destination queues of the second device associated with the at least one communications link.

40. (*Currently amended*) The apparatus of claim 37 wherein the credit update information includes a count of cells in each of the X destination queues of the second device associated with the at least one communications link.

41. (*Currently amended*) The apparatus of claim 37 wherein the cell-in-~~transmit~~ transit information is based on a round trip time delay between the first device and the second device.

42. (*Currently amended*) The apparatus of claim 37 further comprising:

[[iv)]] means for resetting cell-in-transit information concerning a number of cells in transit from the first device to the second device.

43. (*Original*) The apparatus of claim 42 wherein the means for resetting reset cell-in-transit information after the cell count has been updated.

44. (*Currently amended*) The apparatus of claim 37 wherein the accepted credit update[[,]] information originating from the second device is carried in a cell header.

45. (*Currently amended*) The apparatus of claim 37 wherein the accepted credit update information for all of the destination queues is separated into parts, and wherein each of the parts of the accepted credit update information [[are]] is carried in a cell header of each of a plurality of S cells.

46. (*Original*) The apparatus of claim 37 wherein the queues for the plurality of X destinations share a common buffer memory.

47. (*Currently amended*) The apparatus of claim 37 wherein the means for maintaining a cell count associated with each of the X destination queues of the second device includes, for each of the at least one communications links,

[[i)]] means for accepting ~~accepts~~ per destination queue cell count information originating from the second device;

[[ii)]] means for accepting ~~accepts~~ per destination queue cell-in-transit from the first device to the second device count; and

[[iii)]] means for updating ~~updates~~ a per destination queue cell count with a sum of (A) the per destination queue cell count and (B) the per destination queue cell-in-transit count.

48. (*Original*) The apparatus of claim 47 wherein the credit update information includes information about a number of cells in each of the destination queues of the second device associated with the at least one communications link.

49. (*Original*) The apparatus of claim 47 wherein the credit update information includes a count of cells in each of the destination queues of the second device associated with the at least one communications link.

50. (*Currently amended*) The apparatus of claim 47 wherein the cell-in-~~transmit~~ transit information is based on a round trip time delay.

51. (*Currently amended*) The apparatus of claim 47 further comprising:

[[iv)]] means for resetting cell-in-transit information concerning a number of cells in transit from the first device to the second device.

52. (*Currently amended*) The apparatus of claim 51 wherein means for resetting reset the cell-in-transit information after the cell count has been updated.

53. (*Original*) The apparatus of claim 47 wherein the accepted credit update information originating from the second device is carried in a cell header.

54. (*Currently amended*) The apparatus of claim 47 wherein the accepted credit update information for all of the destination queues is separated into parts, and wherein each of the parts of the accepted credit update information [[are]] is carried in a cell header of each of a plurality of S cells.

55. (*Original*) The apparatus of claim 37 wherein the first device is an upstream switch module and the second device is a downstream switch module.

56. (*Canceled*)

57. (*Original*) The apparatus of claim 45, wherein each of the plurality of S cells carries about R-bits of credit update information, wherein the maximum cell count size of each of the destination queues can be expressed with Q-bits, and wherein $R \geq \frac{QX}{S}$.

58. (*Original*) The apparatus of claim 45, wherein each of the plurality of S cells carries about R-bits of credit update information, wherein the maximum cell count size of each of the destination queues can be expressed with Q-bits, and wherein $R = \frac{QX}{S}$.

59. (*Original*) The apparatus of claim 54, wherein each of the plurality of S cells carries about R-bits of credit update information, wherein the maximum cell count size of each of the destination queues can be expressed with Q-bits, and wherein $R \geq \frac{QX}{S}$.

60. (*Original*) The apparatus of claim 54, wherein each of the plurality of S cells carries about R-bits of credit update information, wherein the maximum cell count size of each of the destination queues can be expressed with Q-bits, and wherein $R = \frac{QX}{S}$.

61. *(Currently amended)* An apparatus comprising:

an input link configured to receive at least one cell;

a first switching module coupled to said input link and comprising a memory and logic for maintaining a queue within said memory, and comprising logic for maintaining received said at least one cell in said queue;

a second switching module coupled to the first switching module, said second switching module comprising a memory and logic for maintaining a queue within said memory, said second switching module comprising signaling logic wherein said signaling logic comprises an output to signal that said second switching module memory is full; and

logic coupling said first switching module to said second switching module whereby said first switching module can transfer said at least one cell to said second switching module, said logic output from said second switching module indicating that said second switching module memory is full and preventing said first switching module from transferring said at least one cell to said second switching module.

62. *(Previously Presented)* The apparatus as recited in claim 61, comprising logic to send a credit from said second switching module to said first switching module.